#### DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

# RCRA Corrective Action Environmental Indicator (EI) RCRIS code (CA 725)

#### **Current Human Exposures Under Control**

Facility	Name:	Alaska Railroad Corporation
Facility	Address	419 E. 1 <sup>st</sup> Avenue, Anchorage, AK 99501
Facility	<b>EPA ID</b>	#: AKD 98176 7403
1.	groundv	available relevant/significant information on known and <u>reasonably suspected</u> releases to soil, water, surface water/sediments, and air, subject to RCRA Corrective Action (e.g., from Solid Waste ment Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been <b>considered</b> in this EI nation?
	X	If yes – check here and continue with #2 below.
		If no – re-evaluate existing data, or
		If data are not available skip to #6 and enter "IN" (more information needed) status code.

#### **BACKGROUND**

#### **Definition of Environmental Indicators (for the RCRA Corrective Action)**

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

# Definition of "Current Human Exposures Under Control" EI

A positive "Current Human Exposures Under Control" EI determination ("YE" status code) indicates that there are no "unacceptable" human exposures to "contamination" (i.e., contaminants in concentrations in excess of appropriate risk-based levels) that can be reasonably expected under current land- and groundwater-use conditions (for all "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

#### **Relationship of EI to Final Remedies**

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993 (GPRA). The "Current Human Exposures Under Control" EI are for reasonably expected human exposures under current land- and groundwater-use conditions ONLY, and do not consider potential future land- or groundwater-use conditions or ecological receptors. The RCRA Corrective Action program's overall mission to protect human health and the environment requires that Final remedies address these issues (i.e., potential future human exposure scenarios, future land and groundwater uses, and ecological receptors).

#### **Duration/Applicability of EI Determinations**

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

2. Are groundwater, soil, surface water, sediments, or air **media** known or reasonably suspected to be "**contaminated**" above appropriately protective risk-based "levels" (applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA corrective action (from SWMUs, RUs, or AOCs)?

	Yes	<u>No</u>	?	Rationale / Key Contaminants
Groundwater	X			Metals, petroleum hydrocarbons, BTEX, chlorinated organics, PAHs
Air (indoors) <sup>1</sup>			X	VOCs above indoor air screening levels in ground water in vicinity of buildings
Surface Soil (e.g., <2 ft)	X			Metals, petroleum hydrocarbons, BTEX, PCBs
Surface Water	X			Metals, benzene, xylene
Sediment	X			Metals, PAHs, PCBs
Subsurf. Soil (e.g., >2 ft)	X			Metals, petroleum hydrocarbons, benzene, xylene, PCBs
Air (outdoors)			X	Not yet sampled

	If no (for all media) – skip to #6, and enter "YE," status code after providing or citing appropriate "levels," and referencing sufficient supporting documentation demonstrating that these "levels" are not exceeded.
<u>X</u>	If yes (for any media) – continue after identifying key contaminants in each "contaminated" medium, citing appropriate "levels" (or provide an explanation for the determination that the medium could pose an unacceptable risk), and referencing supporting documentation.
	If unknown (for any media) – skip to #6 and enter "IN" status code.

# Rationale and Reference(s):

Key contaminants found above remedial investigation screening levels during Phase I of remedial investigation. Numerous areas of exceedances of groundwater screening levels for BTEX and petroleum hydrocarbon compounds in the area of the petroleum tank farms (Area 3). Trichloroethene (TCE) in groundwater is 10 times the screening level in the southwest portion of the facility. Magnitude of exceedances in surface soil are as high as 70 times the screening level for PCBs near the Municipal Power and Light plant and as high as 65 times the screening levels for BTEX compounds near the north end of the petroleum tank farms. Magnitude of exceedances in sediment are as high as 350 times the screening levels for PAHs and 60 times the screening level for PCBs in limited low-energy wetland and pond areas along Ship Creek. Magnitude of exceedances in subsurface soil are as high as 180 times the screening level for PCBs in the eastern portion of the facility and as high as 800 times the screening levels for BTEX compounds near the north end of the petroleum tank farm. Magnitude of exceedances in indoor air is uncertain at this time.

Reference: Remedial Investigation/Feasibility Study Work Plan Addendum, June 16, 2006

<sup>&</sup>lt;sup>1</sup> Recent evidence (from the Colorado Dept. of Public Health and Environment, and others) suggest that unacceptable indoor air concentrations are more common in structures above groundwater with volatile contaminants than previously believed. This is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration necessary to be reasonably certain that indoor air (in structures located above (and adjacent to) groundwater with volatile contaminants) does not present unacceptable risks.

#### Notes:

- "Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriately protective risk-based "levels" (for the media, that identify risks within the acceptable risk range).
- Recent evidence (from the Colorado Dept. of Public Health and Environment, and others) suggest that unacceptable indoor air concentrations are more common in structures above groundwater with volatile contaminants than previously believed. This is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration necessary to be reasonably certain that indoor air (in structures located above (and adjacent to) groundwater with volatile contaminants) does not present unacceptable risks.
- 3. Are there **complete pathways** between "contamination" (verified or reasonably suspected) and human receptors such that exposures can be reasonably expected under the current (land- and groundwater-use) conditions?

Summary Exposure Pathway Evaluation Table

#### Potential **Human Receptors** (Under Current Conditions)

"Contaminated" Media	Residents	Workers	Day-Care	Construction	Trespassers	Recreation	$Food^2$
Groundwater		X					
Air (indoors)		_?					
Soil (surface, e.g., <2 ft)		X		X	X	X	
Surface Water						X	?
Sediment						X	
Soil (subsurface e.g., >2 ft)				X			
Air (outdoors)							

# Instructions for <u>Summary Exposure Pathway Evaluation Table</u>:

- 1. Strike-out specific Media including Human Receptors' spaces for Media which are not "contaminated" as identified in #2 above.
- 2. Enter "yes" or "no" for potential "completeness under each "Contaminated" Media Human Receptor combination (Pathway).

Note: In order to focus the evaluation to the most probable combinations some potential "Contaminated" Media – Human Receptor combinations (Pathways) do not have check spaces ("\_\_\_\_"). While these combinations may not be probable in most situations they may be possible in some settings and should be added as necessary.

	If no (pathways are not complete for any contaminated media-receptor combinations) – skip to #6 and enter "YES" status code, after explaining and/or referencing condition(s) in-place, whether natural or man-made, preventing a complete exposure pathway from each contaminated medium (e.g., use optional <u>Pathway Evaluation Work Sheet</u> to analyze major pathways).
X_	If yes (pathways are complete for any "Contaminated" Media – Human Receptor combination) – continue after providing supporting explanation.

If unknown (for any "Contaminated" Media – Human Receptor combination) – skip to #6 and enter "IN" status code.
Rationale and Reference(s): Many areas of the facility around Ship Creek are open to the public for recreational activities. Groundwater drains to Ship Creek which is used for recreational fishing.  References: Ship Creek Surface Water Assessment Report, May 2004; Human Health and Ecological Assessment Scoping Memorandum – Anchorage Terminal Reserve, February 22, 2006, Remedial Investigation/Feasibility Study Work Plan Addendum, June 16, 2006
<sup>3</sup> Indirect Pathway/Receptor (e.g., vegetables, fruits, crops, meat and dairy products, fish, shellfish, etc.)
4. Can the <b>exposures</b> from any of the complete pathways identified in #3 be reasonably expected to be " <b>significant</b> " (i.e. potentially "unacceptable" because exposures can be reasonably expected to be: 1) greater in magnitude (intensity, frequency, and/or duration) than assumed in the derivation of the acceptable "levels" (used to identify the "contamination"); or 2) the combination of exposure magnitude (perhaps even though low) and contaminant concentrations (which may be substantially above the acceptable "levels") could result in greater than acceptable risks?
If no (exposures can not be reasonably expected to be significant (i.e., potentially "unacceptable") for any complete exposure pathway) – skip to #6 and enter "YE" status code after explaining and/or referencing documentation justifying why the exposures (from each of the complete pathways) to "contamination" (identified in #3) are not expected to be "significant."
If yes (exposures could reasonably be expected to be "significant" (i.e., potentially "unacceptable") for any complete exposure pathway) – continue after providing a description (of each potentially "unacceptable" exposure pathway) and explaining and/or referencing documentation justifying why the exposures (from each of the remaining complete pathways) to "contamination" (identified in #3) are expected to be "significant."
_X If unknown (for any complete pathway) – skip to #6 and enter "IN" status code.
Rational and References (s): It is currently unknown whether risks to human health are "significant". Significance of exposures will be evaluated in the Human Health Risk Assessment which is due to be competed in 2007.
<sup>4</sup> If there is any question on whether the identified exposures are "significant" (i.e., potentially "unacceptable") consult a human health Risk Assessment specialist with appropriate education, training and experience.
5. Can the "significant" <b>exposures</b> (identified in #4) be shown to be within <b>acceptable</b> limits?
If yes (all "significant" exposures have been shown to be within acceptable limits) – continue and enter "YE" after summarizing <u>and</u> referencing documentation justifying why all "significant" exposures to "contamination" are within acceptable limits (e.g., a site-specific Human Health Risk Assessment).
If no (there are current exposures that can be reasonably expected to be "unacceptable") – continue and enter "NO" status code after providing a description of each potentially "unacceptable" exposure.
If unknown (for any potentially "unacceptable" exposure) – continue and enter "IN" status code.
Rationale and Reference(s):

6.	Check the appropriate RCRIS status codes for the Current Human Exposures Under Control EI event code (CA 725) and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (and attach appropriate supporting documentation as well as a map of the facility):								
		YE – Yes, "Current Human Exposures Under Control" has been verified. Based on a review of the information contained in this EI Determination, "Current Human Exposures" are expected to be "Under Control" under current and reasonably expected conditions. This determination will be reevaluated when the Agency/State becomes aware of significant changes at the facility.							
		NO – "Current Human Exposures" are NOT "Under Control."							
	_X_	IN – More information is needed to make a determination.							
Complet	ted by:								
Supervis	sor:								
Narrativ	e includi	ng locations where References may be found:							
Operation	See faci ons Offic	lity file and administrative record located at EPA Region 10, Seattle WA. and Region 10 Anchorage e							
Contact	telephon	e and email numbers							
	(name) (phone = (e-mail)								

FINAL NOTE: THE HUMAN EXPOSURES EI IS A QUALITATIVE SCREENING OF EXPOSURES AND THE DETERMINATINOS WITHIN THIS DOCUMENT SHOULD NOT BE USED AS THE SOLE BASIS FOR RESTRICTING THE SCOPE OF MORE DETAILED (E.G., SITE-SPECIFIC) ASSESSMENTS OF RISK.

#### DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

### RCRA Corrective Action Environmental Indicator (EI) RCRIS code (CA 750)

#### **Migration of Contaminated Groundwater Under Control**

Facility 1	Name:	Alaska Railroad Corporation
Facility A	Address:	419 E. 1st Avenue, Anchorage, AK 99501
Facility 1	EPA ID #:	AKD 98176 7403
1.	Has <b>all</b> available	relevant/significant information on known and reasonably suspected releases to the
	groundwater	media, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units
		egulated Units (RU), and Areas of Concern (AOC)), been considered in this EI determination?
	_X	If yes – check here and continue with #2 below.
		If no – re-evaluate existing data, or
		if data are not available, skip to #8 and enter "IN" (more information needed) status code.
BAC	CKGROUND	

# **Definition of Environmental Indicators (for the RCRA Corrective Action)**

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

# **Definition of "Migration of Contaminated Groundwater Under Control" EI**

A positive "Migration of Contaminated Groundwater Under Control" EI determination ("YE" status code) indicates that the migration of "contaminated" groundwater has stabilized, and that monitoring will be conducted to confirm that contaminated groundwater remains within the original "area of contaminated groundwater" (for all groundwater "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

#### **Relationship of EI to Final Remedies**

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993 (GPRA). The "Migration of Contaminated Groundwater Under Control" EI pertains ONLY to the physical migration (i.e., further spread) of contaminated groundwater and contaminants within groundwater (e.g., non-aqueous phase liquids or NAPLs). Achieving this EI does not substitute for achieving other stabilization or final remedy requirements and expectations associated with sources of contamination and the need to restore, wherever practicable, contaminated groundwater to be suitable for its designated current and future uses.

#### **Duration/Applicability of EI Determinations**

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

2.	Is <b>groundwater</b> known or reasonably suspected to be " <b>contaminated</b> " above appropriately protective "levels" (i.e., applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action, anywhere at, or from, the facility?
su	<ul> <li>X If yes – continue after identifying key contaminants, citing appropriate "levels," and referencing porting documentation.</li> <li> If no – skip to #8 and enter "YE" status code, after citing appropriate "levels," and referencing cumentation to demonstrate that groundwater is not "contaminated."</li> <li> If unknown – skip to #8 and enter "IN" status code.</li> </ul>
Rationale a	nd References
contaminar monitoring screening le southwest p	ninants found above remedial investigation screening levels during Phase I of remedial investigation. These its include; metals, petroleum hydrocarbons, BTEX, chlorinated organics and PAHs. Numerous groundwater wells located in the area of the petroleum tank farms (Area 3) have exceedances of over 100 times the groundwater evels for BTEX and petroleum hydrocarbon compounds. TCE in groundwater is 10 times the screening level in the portion of the facility.  *Remedial Investigation/Feasibility Study Work Plan Addendum, June 16, 2006
reference.	Remedial Investigation Fedsionity Study Work Film Fluctuating, State 16, 2000
dis	"Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or ssolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriate "levels" oppropriate for the protection of the groundwater resource and its beneficial uses)
3.	Has the <b>migration</b> of contaminated groundwater <b>stabilized</b> (such that contaminated groundwater is expected to remain within the "existing area of contaminated groundwater" as defined by the monitoring locations designated at the time of this determination)?
	If yes – continue, after presenting or referencing the physical evidence (e.g., groundwater sampling/measurement/migration barrier data) and rationale why contaminated groundwater is expected to remain within the (horizontal or vertical) dimensions of the "existing area of groundwater contamination" <sup>2</sup> ).
_X_	If no (contaminated groundwater is observed or expected to migrate beyond the designated locations defining the "existing area of groundwater contamination" – skip to #8 and enter "NO" status code, after providing an explanation.
	If unknown – skip to #8 and enter "IN" status code.
	ale and Reference(s):  Phase II of remedial investigation has not been completed, therefore, groundwater plumes are not yet bounded. However, contaminated groundwater from Area 3 is believed to be entering Cook Inlet. ence: Remedial Investigation/Feasibility Study Work Plan Addendum, June 16, 2006
Notes:	<sup>2</sup> "existing area of contaminated groundwater" is an area (with horizontal and vertical dimensions) that has been verifiably demonstrated to contain all relevant groundwater contamination for this determination, and is defined by designated (monitoring) locations proximate to the outer perimeter of "contamination" that can and will be sampled/tested in the future to physically verify that all "contaminated" groundwater remains within this area, and that the further migration of "contaminated" groundwater is not occurring. Reasonable allowances in the proximity of the monitoring locations are permissible to incorporate formal remedy decisions (i.e., including public participation) allowing a limited area for natural attenuation.

4.	Does '	'contaminated'' groundwater <b>discharge</b> into <b>surface water</b> bodies?
	_X_ If	yes – continue after identifying potentially affected surface water bodies.
	ar	no – skip to #7 (and enter a "YE" status code in #8, if #7 = yes) after providing an explanation ad/or referencing documentation supporting that groundwater "contamination" does not enter surface ater bodies.
	If	unknown – skip to #8 and enter "IN" status code.
	into Cook linto Ship C	and Reference(s): BTEX and petroleum hydrocarbon contaminants in groundwater in Area 3 migrate Inlet. VOCs found in groundwater in the main portion of the Anchorage Terminal Reserve migrate Creek.  Remedial Investigation/Feasibility Study Work Plan Addendum, June 16, 2006
5.	maxin approp discha	discharge of "contaminated" groundwater into surface water likely to be "insignificant" (i.e., the num concentration <sup>3</sup> of each contaminant discharging into surface water is less than 10 times their oriate groundwater "level," and there are no other conditions (e.g., the nature, and number, of rging contaminants, or environmental setting), which significantly increase the potential for eptable impacts to surface water, sediments, or eco-systems at these concentrations)?
		If yes – skip to #7 (and enter "YE" status code in #8 if #7 = yes), after documenting: 1) the maximum known or reasonably suspected concentration <sup>3</sup> of <u>key</u> contaminants discharged above their groundwater "level," the value of the appropriate "level(s)," and if there is evidence that the concentrations are increasing; and 2) provide a statement of professional judgment/explanation (or reference documentation) supporting that the discharge of groundwater contaminants into the surface water is not anticipated to have unacceptable impacts to the receiving surface water, sediments, or eco-system.
	X	If no – (the discharge of "contaminated" groundwater into surface water is potentially significant) – continue after documenting: 1) the maximum known or reasonably suspected concentration <sup>3</sup> of <u>each</u> contaminant discharged above its groundwater "level," the value of the appropriate "level(s)," and if there is evidence that the concentrations are increasing; and 2) for any contaminants discharging into surface water in concentrations <sup>3</sup> greater than 100 times their appropriate groundwater "levels," the estimated total amount (mass in kg/year) of each of these contaminants that are being discharged (loaded) into the surface water body (at the time of the determination), and identify if there is evidence that the amount of discharging contamination is increasing.
		If unknown – enter "IN" status code in #8.
Pet	troleum hydr	Reference(s): cocarbons and benzene appear to be discharging into Cook Inlet from the petroleum tank farms in the ing well MWE-17. Benzene is approximately 100 times the screening level of 5 micrograms/liter in

<sup>3</sup> As measured in groundwater prior to entry to the groundwater-surface water/sediment interaction (e.g., hyporheic) zone.

well MWE-17. The significance of the discharge of VOCs into Ship Creek I currently unknown and will be

evaluated in Phase II of the RI and the human health and ecological risk assessment. Reference: *Remedial Investigation/Feasibility Study Work Plan Addendum*, June 16, 2006

6.	Can the <b>discharge</b> of "contaminated" groundwater into surface water be shown to be " <b>currently acceptable</b> " not cause impacts to surface water, sediments or eco-systems that should not be allowed to continue until a fine remedy decision can be made and implemented <sup>4</sup> )?						
		If yes – continue after either: 1) identifying the Final Remedy decision incorporating these conditions, or other site-specific criteria (developed for the protection of the site's surface water, sediments, and ecosystems), and referencing supporting documentation demonstrating that these criteria are not exceeded by the discharging groundwater; OR 2) providing or referencing an interim-assessment <sup>5</sup> , appropriate to the potential for impact, that shows the discharge of groundwater contaminants into the surface water is (in the opinion of a trained specialist, including ecologists) adequately protective of receiving surface water, sediments, and eco-systems, until such time when a full assessment and final remedy decision can be made. Factors which should be considered in the interim-assessment (where appropriate to help identify the impact associated with discharging groundwater) include: surface water body size, flow, use/classification/habitats and contaminant loading limits, other sources of surface water/sediment contamination, surface water and sediment sample results and comparisons to available and appropriate surface water and sediment "levels," as well as any other factors, such as effects on ecological receptors (e.g., via bio-assays/benthic surveys or site-specific ecological Risk Assessments), that the overseeing regulatory agency would deem appropriate for making the EI determination.					
	_X_	If no – (the discharge of "contaminated" groundwater can not be shown to be "currently acceptable") – skip to #8 and enter "NO" status code, after documenting the currently unacceptable impacts to the surface water body, sediments, and/or eco-systems.					
		If unknown – skip to 8 and enter "IN" status code.					
grou are c	ndwater disch	Reference(s): Petroleum sheens have been detected in Cook Inlet which could be a result of contaminated targe from the petroleum tank farm. The significance of the discharge of VOCs into Ship Creek flown and will be evaluated in Phase II of the RI and the human health and ecological risk					
]	Reference: R	emedial Investigation/Feasibility Study Work Plan Addendum, June 16, 2006					
:	species, appro areas by signi The unders developing fi- demonstration	use areas of inflowing groundwater can be critical habitats (e.g., nurseries or thermal refugia) for many opriate specialist (e.g., ecologist) should be included in management decisions that could eliminate these ficantly altering or reversing groundwater flow pathways near surface water bodies. tanding of the impacts of contaminated groundwater discharges into surface water bodies is a rapidly eld and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of in to be reasonably certain that discharges are not causing currently unacceptable impacts to the surface tents, or eco-systems.					
C	collected in th	groundwater <b>monitoring</b> /measurement data (and surface water/sediment/ecological data, as necessary) be ne future to verity that contaminated groundwater has remained within the horizontal (or vertical, as mensions of the "existing area of contaminated groundwater?"					
-	even	s – continue after providing or citing documentation for planned activities or future sampling/measurement its. Specifically identify well/measurement locations which will be tested in the future to verify the actation (identified in #3) that groundwater contamination will not be migrating horizontally (or vertically, excessary) beyond the "existing area of groundwater contamination."					
-	If no	– enter "NO" status code in #8.					
-	If un	known – enter "IN" status code in #8.					
]	Rationale and	Reference(s): Quarterly groundwater monitoring for all COC's is currently on-going.					

code	Check the appropriate RCRIS status codes for the Migration of Contaminated Groundwater Under Control EI (event code CA750), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (attach appropriate supporting documentation as well as a map of the facility).							
	the inform Groundwa "contamination contamination contamina	nation contained in hter" is "Under Co nated" groundwate hted groundwater r	this EI determination, introl." Specifically, thir is under control, and the	t has been determ s determination in nat monitoring wil ting area of contai	has been verified. Based on a review of ined that the "Migration of Contaminated dicates that the migration of II be conducted to confirm that minated groundwater." This determination hanges at the facility.			
X	_ NO – Una	cceptable migration	on of contaminated grou	ndwater is observ	ed or expected.			
	_ IN – More	e information is ne	eded to make a determi	nation.				
Completed by	Howard C	rlean	oject Manager		8/14/2006 			
Supervisor:	Rick Albr	ight Office of Air, Was	ete and Toxics					
Narrative inclu	uding location	s where Reference	es may be found:					
See fa		l administrative re	cord located at EPA Re	gion 10, Seattle, W	VA. and Anchorage Operations			
Contact teleph	none and e-ma	il numbers						
(name (phor (e-ma	ne #) (	Howard Orlean 206) 553-2851 Orlean. Howard@e	epa.gov					